

**REMARKS**

This application is a Divisional of United States Patent Application Ser. No. 10/121,375 filed on April 12, 2002 which is a divisional of 09/778,696 filed on February 6, 2001 (now United States Patent 6,531,694) which is a divisional of United States Patent application Ser. No. 09/071,764 filed on May 1, 1998 (the "Parent Application"), now United States Patent 6,281,489.

Claims 1- 59 were originally filed in the parent application Ser. No. 09/071,764. In a Restriction Requirement, election was required to be made between claims directed to the following patentably distinct species of the claimed invention:

- I. Claims 1 - 22, 24, 32 and 57 - 59, drawn to methods and apparatus for using optical fiber sensors, classified in class 250, subclass 227.14.
- II. Claim 23, drawn to a method of using an acoustic sensor, classified in class 73, subclass 570.
- III. Claims 25 - 31, and 33 - 36, drawn to methods and apparatus using chemical sensors, classified in class 385, subclass 141.
- IV. Claims 37 - 51, drawn to methods and apparatus of supplying optical energy to a light actuated transducer, classified in class 359, subclass 143
- V. Claims 52 - 56, drawn to a method of generating electric power, classified in class 136, subclass 243.

In response to the Restriction requirement, Applicant elected to prosecute claims 25 - 31, and 33 - 36 from Group III, without traverse, in the parent application.

In a first divisional application Ser. No. 09/778,696 filed on February 6, 2001, applicant elected to prosecute claims 37 -51 from group IV. In a second divisional application Ser. No. 10/121,375 filed on 11 April 2002, applicant elected to prosecute claims 16-22, 24, 32 and 57-59 from group I. A new claim 60 was added in the second divisional application. The second divisional application was subjected to a further restriction requirement requiring restriction to one of the following inventions:

- I. Claims 16-21 and 24 drawn to a downhole injection evaluation system, classified in class 250, subclass 227.14
- II. Claim 22, drawn to an injection well having at least one fiber optic cable, classified in class 166, subclass 252
- III. Claims 32 and 57-60 drawn to a method of monitoring a downhole parameter in a wellbore, classified in class 73, subclass 152.

In the second divisional application, claims 32 and 57-60 were selected for further prosecution.

In the present application, applicant elected to prosecute claims 16- 21 and 24 for further prosecution. Following a preliminary amendment, claims 16-19, 21, and new claims 60-94 remained in the application.

In a response filed on January 20, 2005 to an office action dated October 29, 2004, claims 16 and 74 were amended and Claims 60 and 78 were canceled. In the present document:

Claim 16, and independent claim has been amended to include the substantive limitations of claim 63;

Claim 17 has been amended to make its language consistent with the amendment to claim 16;

Claim 18 has been canceled;

Claim 19, an independent claim, has been canceled;

Claim 21 has been amended to change its dependency and make its language consistent with that of amended claim 16;

Claim 61 has been rewritten in Markush form including the limitations of claim 62;

Claim 62 has been canceled;

Claim 63 has been canceled;

Claim 64 has been amended to changes its dependency;

Claim 65 has been amended to changes its dependency and replace functional language with operative language;

Claim 67 has been amended to change its dependency;

Claim 68 has been canceled;

Claims 69 has been rewritten in Markush form including limitation of claim 70;

Claim 70 has been canceled;

Claim 71 has been rewritten to changes its dependency;

Claim 72 has been canceled;

Claim 73 has been canceled;

Independent claim 74 has been amended to include the substantive limitations of claim 81;

Claim 75 has been amended to make its language consistent with that of amended claim 74;

Claim 76 has been canceled;

Claim 77 has been amended to make its language consistent with that of amended claim 74;

Claim 79 has been rewritten in Markush form including limitations of claim 80;

Claim 80 has been canceled;

Claim 81 has been canceled;

Claim 82 has been amended to make its language consistent with that of amended claim 74;

Claim 83 has been broadened by changing its dependency;

Claim 85 has been broadened by changing its dependency;

Claim 86 has been broadened by changing its dependency;

Claim 87 has been rewritten in Markush form including limitations of claim 88;

Claim 88 has been canceled;

Claims 90 and 91 have been canceled;

Claim 92 has been broadened by changing its dependency;

New independent claim 95 includes the substantive limitations of claim 16 and claim 21

No new matter has been added by the amendments. Reconsideration of the application as amended is respectfully requested. The Examiners rejections and objections are addressed in substantially the same order as in the referenced office action.

**REJECTIONS UNDER 35 USC § 102**

Claims 16 and 74 stand rejected under 35 USC § 102(b) as being anticipated by *Keller* (US 5,176,207).

Claim 16 has been amended to include the substantive elements of claim 63. Claim 63 has been indicated in the referenced office action as being allowable if rewritten as an independent claim. Accordingly, applicant respectfully submits that claim 16 and all claims that depend upon claim 16 are allowable under 35 USC § 102(b) over *Keller* and patentable under 35 USC §§ 102-103 over *Keller* and the prior art of record.

Claim 74 has been amended to include the substantive elements of claim 81. Claim 91 has been indicated in the referenced office action as being allowable as an independent claim. Accordingly, applicant respectfully submits that claim 74 and claims dependent thereon are allowable under 35 USC § 102(b) over *Keller* and patentable under 35 USC §§ 102-103 over *Keller* and the prior art of record.

**REJECTIONS UNDER 35 USC 103**

Claims 17-19, 61, 62, 75, 76, 79 and 80 stand rejected under 35 USC § 103 over *Keller* in view of *Khuth* (US 5,804,713). The patentability of claims 17-19, 61, 62, 75, 76, 79 and 80 has been addressed above in the remarks on the rejections under 35 USC § 102.

The Commissioner is authorized to charge any fees for these amendments to Deposit Account 02—0429 (014-12049-D3).

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Respectfully submitted,



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